

Prevention and Control of Communicable Diseases



*A Guide for School
Administrators, Nurses, Teachers
and Child Care Providers*

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FOREWORD

HELP CONTROL COMMUNICABLE DISEASES

Vaccines are now available to control the majority of diseases which have caused illness and death in children in the past. Medical treatments help to control many others, but schools and child care centers must continue to play an important role in controlling the spread of communicable disease. By enforcing the state communicable disease regulations, excluding children who are ill, and promptly reporting all suspected cases of communicable disease, personnel working with children can help ensure the good health of the children in their care.

Be alert for signs of illness such as elevated temperature; skin rashes; inflamed eyes; flushed, pale or sweaty appearance. If a child shows these or other signs of illness, pain or physical distress, he/she should be evaluated by a health care provider. Children or staff with communicable diseases should not be allowed to attend or work in a school or child care setting until they are well. Recommendations for exclusion necessary to prevent exposure to others are contained in this booklet.

Please report all suspected cases of communicable disease promptly to your city, county or district health unit. Prompt reporting is the first step to insuring appropriate outbreak control measures.

Copies of the current **Missouri Laws (accompanied by) Department of Health Rules Governing the Control of Communicable and Other Diseases Dangerous to Public Health**, may be obtained from the Missouri Department of Health, Films and Literature Unit, PO Box 570, Jefferson City, MO 65102. The current immunization schedule will be attached to the Immunization Report (CD 31) or may be obtained through the local, district or state department of health.

SUMMARY OF LAWS PERTAINING TO SCHOOLS AND CHILD CARE CENTERS

Section 167.181 RSMo (Cum. Supp. 1996) pertains to Immunization of School Students

- To attend school, all students must have received the minimum number of immunizations required for polio, measles, mumps, rubella, diphtheria, tetanus, pertussis and Hepatitis B.
- Children will be required to be adequately immunized at the time of entrance to school.
- Vaccines are provided without charge through local health units, and are administered according to a schedule developed by the Department of Health. There may be a minimal fee charged for the administration of the vaccine if the parent/guardian has the ability to pay the fee. No one can be denied the vaccine due to inability to pay the fee.
- Students may continue to attend school if the immunization process has begun and is progressing on a schedule recommended by the Department of Health.
- Exemptions to this law are granted upon request of one parent based upon religious beliefs, and for medical reasons upon request of a licensed physician.
- Each school superintendent is required to maintain an immunization record for each child enrolled in or attending a school under his jurisdiction.

Section 167.191 RSMo 1986

- It is unlawful for any child to attend public school while afflicted with any contagious or infectious disease, or while liable to transmit such disease after having been exposed to it.
- School and child care personnel may require any child to be examined by a physician if they believe the child can infect others. The child may be excluded from school/child care until a physician determines the child cannot infect others, or until a recommended exclusion period has passed (see disease specific recommendations in this booklet).

Section 210.003 RSMo (Supp. 1988) pertains to Immunizations of Attendees in Day Care

- To enroll in or attend any public, private or parochial day care center, preschool or nursery school caring for ten or more children, a child must have received all age-appropriate immunizations as specified by the Department of Health.
- The child may enter while in the process of obtaining the required immunizations as long as the child is receiving the immunizations on schedule, or if the parent/guardian has filed a parent/guardian objection or a physician has filed a medical exemption.
- The administrator of the facility must maintain the records, and report annually the immunization status of the children enrolled.

SUMMARY OF RULES GOVERNING IMMUNIZATIONS/EXCLUSIONS

Rule 19 CSR 20-28.010 Immunization requirements for school children (establishes the minimum requirements for school attendance).

- Requires each superintendent of a public, private, parochial or parish school to maintain a record showing the immunization status of every child enrolled in or attending a school under the superintendent's jurisdiction, and to make an annual report of that status to the Department of Health by October 15 of each year.
- Those students not in compliance are to be excluded from school unless legally exempted (medical/religious), and a Report of Noncompliance is to be filed with the immunization report by October 15 of each year.
- Students who show evidence of being in the process of obtaining the required immunizations may attend as long as they proceed on a schedule established by the Department of Health.
- Satisfactory evidence of immunization means a statement, certificate or record from a physician or other recognized health facility or personnel, stating the required immunization has been given.

Rule 19 CSR 20-20.040 Measures for the Control of Communicable Diseases (pertains to both school and child care settings)

In the event of an outbreak or a suspected outbreak of a vaccine-preventable disease within a particular facility, the administrator will follow the control measures as outlined by the local health authority or the Department of Health. This may include exclusion of students who have not been immunized for that disease due to religious or medical exemption.

Rule 19 CSR 20-28.040 Immunization requirements for child care attendance

- Requires each administrator of a public, private or parochial day care, preschool, or nursery school caring for ten or more children to maintain a record showing the immunization status of every child enrolled in or attending a facility under the administrator's jurisdiction and to make an annual report of that status to the Department of Health by January 15 of each year.
- Children must have received all age-appropriate immunizations according to the current schedule established by the Department of Health.
- Children who show evidence of being in the process of obtaining the required immunizations may attend as long as they proceed on the current schedule as established by the Department of Health.
- Children not in compliance are to be excluded from attendance unless the parent/guardian has filed a parent/guardian objection or a physician has filled a medical exemption.
- Satisfactory evidence of immunization means a statement, certificate or record from a physician or other recognized health facility stating that the required immunizations have been given and verifying the type of vaccine and the dates, including the month, day and year of each immunization.

AIDS/HIV INFECTION
(Reportable disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Variable. 6 - 12 weeks for HIV seroconversion
1 - 10 years or greater for AIDS disease

SYMPTOMS: Failure to thrive, generalized lymphadenopathy (swollen lymph glands), enlarged liver and/or spleen, central nervous system disease, recurrent invasive bacterial infections, opportunistic infections, specified malignancies, more.

PERIOD OF COMMUNICABILITY:
From 6-12 weeks after infection till death

MODE OF TRANSMISSION:
NOT by routine social or community contact with an HIV-infected person. Transmitted person-to-person through sexual contact, sharing of HIV-contaminated needles and syringes, transfusion of infected blood, via needlesticks or mucous membrane contact with HIV-infected blood/body fluids, mother to infant transmission before or around time of birth, and breast feeding.

SCHOOL ATTENDANCE: *
Except for blood exposure, HIV infection is not acquired through the usual types of contacts which occur in the school setting. Therefore:

- Children and adolescents infected with HIV should generally be allowed to attend pre-school/school without restrictions, provided the child's physician gives approval.
- The need for a more restricted school environment for some infected children should be evaluated on a case-by-case basis with consideration of conditions that may pose an increased risk to others, such as aggressive biting behavior or the presence of exudative, weeping skin lesions that cannot be covered.
- Only the child's parents, other guardians, and physician have an absolute need to know that the child is HIV-infected.
- All schools/day cares should adopt and follow routine standard procedures (universal precautions) for handling blood or blood-contaminated fluids regardless of whether students with HIV infection are known to be in attendance (see appendix for Blood and Body Fluids Precautions).

SCHOOL ATTENDANCE, cont. : *

- Children infected with HIV develop progressive immunodeficiency, which increases their risk of experiencing severe complications from some infections. The child's physician should regularly assess the risk of an unrestricted environment on the health of the HIV-infected student, including evaluation of possible contagious diseases in the school (e.g., measles, chicken pox, tuberculosis).
- HIV infection should be treated like other chronic illnesses that require special education and other related services.
- Continuity of education must be assured whether at school or at home.
- Because of the stigmata associated with this disease, maintaining confidentiality is essential. Disclosures of information should be only with the informed consent of the parents or legal guardians and age-appropriate assent of the student.

* Taken from 1997 Red Book, Report of the Committee on Infectious Diseases, Twenty-Fourth Edition. American Academy of Pediatrics

CONTACT/FOLLOW-UP:

Any person who experiences a skin injury from a sharp object or mucous membrane exposure to blood or bloody secretions from an HIV-infected (seropositive) person must be immediately referred for medical evaluation, counseling and possible preventive treatment. Notification of sexual and needle-sharing partners by infected person or State Department of Health/designee.

CAMPYLOBACTER ENTERITIS
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 1 to 7 days, but can range from 1-10 days depending on dose ingested.

SYMPTOMS: Diarrhea, frequently bloody; abdominal pain; malaise; fever; nausea and vomiting. Illness usually lasts no more than 10 days, generally 2-5 days.

PERIOD OF COMMUNICABILITY:

Throughout the course of infection. Individuals not treated with antibiotics can excrete organisms for as long as 7 weeks. Communicability is greatest during acute phase of illness.

MODE OF TRANSMISSION:

By ingestion of organisms in undercooked chicken and pork; contaminated food and water or raw milk from fecal-carrier animals. From contact with infected pets (especially puppies and kittens), farm animals or infected infants. Person-to-person transmission can occur, especially in infants.

SCHOOL ATTENDANCE:

Symptomatic childcare employees should NOT be permitted to work until diarrhea has ceased. Exclusion of asymptomatic convalescent stool-positive individuals is indicated only for those with questionable handwashing habits. Children with diarrhea should be excluded till diarrhea ceases or be cared for in a separate protected area until diarrhea subsides. In settings where children are not toilet-trained, it is prudent to treat with antibiotics. Symptomatic children should be excluded until 2 days following initiation of antibiotics or until the child is without diarrhea.

CONTACT/FOLLOW-UP:

As above.

CHICKEN POX

- IMMUNIZATION:** Recommended for children 12 months of age and older
- INCUBATION PERIOD:** Usually 13 to 17 days, but ranges from 10 to 21 days.
- SYMPTOMS:** Sudden onset of mild fever, rash on second day as superficial raised pimples which shortly become filled with clear fluid. Later, scabs form. There may be successive crops of rash, more on the trunk, up to the tenth day of disease.
- PERIOD OF COMMUNICABILITY:** As long as 5 days but usually 1 to 2 days before onset of rash, and not more than 5 days after onset of rash OR until all lesions are crusted.
- MODE OF TRANSMISSION:** From person to person by direct contact with vesicle fluid OR by droplet or airborne spread from respiratory tract of infected person. Also direct contact with vesicle fluid of persons with herpes zoster (shingles).
- SCHOOL ATTENDANCE:** May return when all lesions are crusted, generally day 6 after onset of rash.
- CONTACTS/FOLLOW-UP:** Susceptible individuals should be considered infectious 10 - 21 days following exposure. Susceptible individuals having serious medical conditions or if pregnant should be referred to their private physicians for evaluation for preventive therapy (VZIG) within 96 hours to prevent or modify disease.

COMMON COLD

IMMUNIZATION: None

INCUBATION PERIOD: Usually 48 hours, but ranges from 12 to 72 hours.

SYMPTOMS: Runny nose, sneezing, watery eyes, irritated nose and throat, coughing, elevated temperature, chills, aches and fatigue.

PERIOD OF COMMUNICABILITY: Unknown, but most contagious during presence of acute symptoms such as coughing and sneezing.

MODE OF TRANSMISSION: Primarily by direct contact with discharges from respiratory tract of infected persons by airborne route, probably by droplets as well.

SCHOOL ATTENDANCE: Exclude if fever is greater than 100 degrees F or if excessive coughing is present. Need not be excluded if symptoms are mild/moderate and child is able to participate in routine activities.

CONTACTS/FOLLOW-UP: Observe for other respiratory or viral illnesses such as strep throat, influenza, or chicken pox which may begin with symptoms similar to the common cold. Child's health status should be monitored.

BACTERIAL CONJUNCTIVITIS
(Pink Eye)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 24 to 72 hours

SYMPTOMS: Reddening of the white of the eye and inner eyelids, with or without purulent (pus) drainage.

PERIOD OF COMMUNICABILITY:
Entire course of active infection

MODE OF TRANSMISSION:
Direct contact with discharges from the eye or upper respiratory tract of an infected person; from contaminated fingers, clothing, other items.

SCHOOL ATTENDANCE:
Preferably child should not attend school until examined by a physician and approved for re-admission. Otherwise, child should be excluded from school during acute stage of infection.

CONTACT/FOLLOW-UP:
No recommendations

COXSACKIE VIRUS INFECTION
(Hand-Foot-Mouth Disease, Aseptic Meningitis,
Enterovirus or Echoviruses Infections)

IMMUNIZATION: None

INCUBATION PERIOD: 3 to 6 days
For acute hemorrhagic conjunctivitis - 24 to 72 hours.

SYMPTOMS: Variable.

- Respiratory - common cold, sore throat, blister-like lesions on throat (with or without difficulty in swallowing), fever, vomiting and prostration, inflammation of oral mucosa, pneumonia, paroxysmal pain in intercostal muscles.
- Neurologic - aseptic meningitis
- Gastrointestinal - abdominal pain, vomiting, diarrhea, hepatitis
- Eye - acute hemorrhagic conjunctivitis
- Heart - myopericarditis
- Skin - rash

PERIOD OF COMMUNICABILITY:
A person is most contagious during the acute stage of illness. Virus is shed through respiratory secretions for one week and feces for up to six weeks.

MODE OF TRANSMISSION:
Direct contact with nose/throat discharges and feces. Fomite contamination and transmission can also occur. Mother to infant transmission before or around time of birth.

SCHOOL ATTENDANCE:
Exclude during acute stage of illness or until child is able to participate in routine activities. Then follow good handwashing and hygiene practices, especially after diaper changing or assisting child following restroom use. Be sure child's hands are washed.

CONTACTS/FOLLOW-UP:
Check for other cases in groups of preschool children. Reassure parents that infection is self-limited, mild, and in most instances, asymptomatic with no serious health effects following the disease period.

DIPHTHERIA-PHARYNGEAL
(Reportable Disease – Report to Local Health Agency)

IMMUNIZATION: Part of standard childhood immunization schedule. Booster doses (Td) are recommended every 10 years.

INCUBATION PERIOD: Usually 2 to 5 days, occasionally longer

SYMPTOMS: Fever, sore throat, grayish white patches on tonsils or palate. May have nasal discharge, fatigue, headache, and swollen lymph nodes.

PERIOD OF COMMUNICABILITY: Variable. If untreated usually 2 weeks or less, seldom more than 4 weeks. Effective antibiotic therapy can limit communicability to 4 days. Elimination of organism should be documented by two consecutive negative cultures after completion of therapy.

MODE OF TRANSMISSION: Primarily from intimate/close contact with discharges from nose, throat, and eye of carrier or infected person. Rarely from contact with articles soiled from discharges of infected person.

SCHOOL ATTENDANCE: Exclude until two consecutive negative cultures of the nose and of the throat, with second set of cultures taken not less than 24 hours apart, are secured following effective antibiotic therapy.

CONTACTS/FOLLOW-UP:

- Adult contacts whose occupations involve handling food, especially milk, or close association with nonimmunized children, should be excluded from that work until bacteriologic examination proves them not to be carriers.
- All close contacts should have cultures taken and should be kept under surveillance for 7 days. A single dose of penicillin (IM) or a 7-10 day course of erythromycin (PO) is recommended for all persons exposed to diphtheria, regardless of their immunization status. If cultures are positive, they should be treated with antibiotics, and those who handle food or work with school children should be excluded from work or school until bacteriologic examination proves them not to be carriers.
- Previously immunized contacts should receive a booster dose of diphtheria toxoid, and a primary series should be initiated in nonimmunized contacts, using Td, DT, DTP or DTP-Hib vaccine depending on age.

E-COLI 0157:H7 DIARRHEA
(Reportable disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: From 10 hours to 6 days, usually 3 to 4 days

SYMPTOMS: Diarrhea, initially nonbloody progressing to grossly bloody; severe abdominal pain, and in one third of cases, fever. Late sequelae includes hemolytic-uremic syndrome (HUS)

PERIOD OF COMMUNICABILITY:
While organism still present in feces

MODE OF TRANSMISSION:
Fecal-oral route; contaminated food or water, other beverage via unwashed hands of infected persons or carriers or fecal contamination (by humans or animals) of water supply. Undercooked meat and unpasteurized milk are also vehicles for spread of this germ.

- Strict attention to handwashing before handling food, drinks and after using the toilet is essential.

SCHOOL ATTENDANCE:
For single cases, exclusion until diarrhea has stopped and 2 stool cultures are negative for E-Coli 0157:H7.

If outbreak is present, center should be closed to new admissions. Care must be taken to prevent transfer of children to other child care centers. Consult State Health Department, Bureau of Communicable Disease Control.

CONTACTS/FOLLOW-UP:
Observe all children for signs of diarrhea. If diarrhea present, exclude from school until culture taken and results are known.

FEVER BLISTERS/COLD SORES
(Herpes Simplex Latent Infection)

IMMUNIZATION: None

INCUBATION PERIOD: 2 to 12 days

SYMPTOMS: Superficial clear vesicles (fluid filled blisters) on an erythematous base, usually on the face and lips which crust and heal within a few days.

PERIOD OF COMMUNICABILITY: Until lesions crusted, generally 4 to 5 days. Virus is present in highest concentration in the first 24 hours after appearance of vesicles

MODE OF TRANSMISSION: Contact with saliva of infected person or carrier. Avoid mouthing of toys.

SCHOOL ATTENDANCE: Only children who cannot control oral secretions should be excluded from daycare or school. If herpes lesions are abundant on face or in the mouth, or the child has difficulty chewing or swallowing, they should be evaluated by a physician. Restrict contact with other children who have eczema or skin conditions.

CONTACT/FOLLOW-UP: No recommendations

“FIFTH DISEASE”
(Erythema Infectiosum, Parvovirus B19)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 4 to 14 days; may be as long as 28 days.

SYMPTOMS: May include low grade fever, nonspecific headache and tiredness; within the next week, a red rash generally appears on the face giving a “slapped cheek” appearance. The rash may then extend to the body and tends to fade and reappear. Sometimes, the rash is lacy in appearance and may be itchy. The rash may persist for over a week, and may recur in response to sunlight or a warm bath. Some persons may have vague signs of illness or no symptoms at all.

PERIOD OF COMMUNICABILITY:

Infectious for 1-3 days prior to the onset of the rash. Persons with suppressed immune systems who have chronic infection and severe anemia may be communicable for months to years.

MODE OF TRANSMISSION:

Primarily by direct contact with discharges from respiratory tract of infected persons.

SCHOOL ATTENDANCE:

No exclusion is necessary - may exclude for elevated temperature.

CONTACTS/FOLLOW-UP:

No restrictions. For many years, “Fifth Disease” was viewed as an unimportant rash illness of children. Recent studies have shown that the virus may be responsible for serious complications in persons with chronic red blood cell disorders, persons with impaired immune systems. Pregnant women should be informed of the relatively low potential risks to the fetus and to contact their physician. When outbreaks occur in situations where there is prolonged contact, such as in homes, schools and day care centers, the above high risk persons should contact their physician for advice.

GIARDIASIS
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 3-25 days or longer (4 weeks); median 7-10 days.

SYMPTOMS: Can be asymptomatic.
Variable intestinal symptoms. Acute watery diarrhea with abdominal pain, or in chronic disease, prolonged, intermittent diarrhea characterized by passage of foul-smelling feces (diarrheal or soft) associated with flatulence, bloating, anorexia, fatigue and significant weight loss.

PERIOD OF COMMUNICABILITY:
Entire period of infection, usually 1-4 weeks but can be months.

MODE OF TRANSMISSION:
Person-to-person via hand-to-mouth transfer of cysts from feces, especially in institutions and day care centers. May also occur as a result of ingesting contaminated water (from humans or animals) or food and by sharing objects (toys, diaper changing tables) contaminated with infested feces.

SCHOOL ATTENDANCE:
Persons with diarrhea should be excluded until diarrhea has ceased. Children with positive stool cultures, who do not have diarrhea, do not need to be excluded.

CONTACTS/FOLLOW-UP:
If outbreak occurs, (2 or more cases), contact Local Health Agency who will do an epidemiologic investigation to detect and treat all infected symptomatic children, staff and family members. Notify parents of children who have been in direct contact with a symptomatic, stool culture positive child. They should contact their physician if their child develops diarrhea or signs of chronic illness that may be associated with giardia infection (watery diarrhea, abdominal cramps, bloated abdomen, swelling, significant weight loss, retarded growth and/or anemia).

HEAD LICE **(Pediculosis Capitis)**

IMMUNIZATION:	None
INCUBATION PERIOD:	“Nits” (eggs) hatch in a week and reproduce 8 to 10 days after hatching.
SYMPTOMS:	Irritation and itching of the scalp. Presence of insects and eggs or “nits” in the hair, especially at the nape of the neck and about the ears. Lice may appear lighter on persons with fair hair and darker on persons with dark hair.
PERIOD OF COMMUNICABILITY:	Communicable when live lice are present and moving, and/or viable nits are present on the child.
MODE OF TRANSMISSION:	Direct head to head contact, e.g., crowded sleeping conditions; may also be spread by contact with infested headgear, towels, hairbrushes, combs, pillows, bedding, earphones, etc.
SCHOOL ATTENDANCE:	Exclude until live lice and viable nits are eradicated. Children may return after being treated with a pediculicide and after delousing of personal articles. It is recommended that schools and day care centers have a “no nit” policy and exclude children until all nits have been removed.
CONTACTS/FOLLOW-UP:	When head lice are found in a setting, all close contacts of the infested child should be examined for signs of itching, redness, nits and lice. All household and other intimate contacts should be examined. Concurrent treatment of the child and all of his or her infested contacts as well as treatment of clothing and disinfection of inanimate objects is necessary to eradicate the infestation.

HEPATITIS - A (HAV)
(Reportable Disease - Report to Local Health Agency)

- IMMUNIZATION:** Two inactivated vaccines available but not currently part of Missouri's immunization schedule for children.
- INCUBATION PERIOD:** Generally 28-30 days, ranges from 15-50 days.
- SYMPTOMS:** Many infections are asymptomatic, especially in young children. Mild to severe symptoms may include any or all of the following: sudden onset of fever, weakness, loss of appetite, nausea, dark urine, abdominal discomfort, followed by jaundice (yellowing of eyes and skin).
- PERIOD OF COMMUNICABILITY:** Largely contagious two weeks before symptoms appear until one week after jaundice (3 weeks). If jaundice is not present, person should be considered infectious for the two weeks before symptoms started until two weeks after the start of symptoms (total of 4 weeks).
- MODE OF TRANSMISSION:** The hepatitis A virus must enter through the mouth and be multiplied in the body and passed in the feces. The virus can then be carried on an infected person's hands and can be spread by direct contact, or by eating or drinking food or beverages that were handled by the infected individual. It can also be spread by drinking water contaminated with human sewage. The ritual sharing between users of both injectable and inhalable drugs provides an ideal method for the transmission of the virus.
- SCHOOL ATTENDANCE:** Children and adults with confirmed hepatitis A infection should be excluded while symptomatic and at least 1 week from onset of jaundice or 2 weeks after onset of illness **OR** until Immune Globulin has been given to appropriate staff and children.
- CONTACTS/FOLLOW-UP:**
(Per Local Health Department) Immune Globulin (IG) is an effective control measure and is recommended for all household, sexual (heterosexual or homosexual), drug use, and other at risk contacts (close friends) within 14 days of exposure to hepatitis A.

continued

HEPATITIS - A (HAV)
(Reportable Disease - Report to Local Health Agency)

Child-care centers: Special control measures apply. If hepatitis A is diagnosed in a household contact of a day-care child, that child should be tested for IgM antibody to hepatitis A virus; this measure may facilitate early detection of an outbreak.

Guidelines for Use of IG in Child-Care Centers:

1. Where all children are more than two years old or toilet trained:
When a case of hepatitis A is identified in an employee or child, IG (0.02 ml/kg) is recommended for all employees in contact with the index case and all children in the same room as the index case.
2. Where children are not yet toilet trained: IG (0.02 ml/kg) is recommended for all employees and enrolled children when
 - a. there is one case of HAV infection in a child-care employee or child
 - or**
 - b. there are cases of HAV infection in one or more household contacts of two of the enrolled children.

During the six weeks after the last case is identified, any new employees and newly enrolled children should receive IG.

Affected child-care centers should not close down, since this would permit infected children to return to their homes and neighborhoods without their illness being recognized. Closing one center may result in spread to other centers. Cooperation between public health agencies and child-care operators is essential to successful outbreak control.

Family child-care operators should follow the prevention and control measures described above.

School and preschools:

School room exposure is usually not an important means of transmitting hepatitis A. Routine administration of IG is not indicated for pupils and teachers in contact with a case. However, a thorough interview must be done to determine if any of the classmates may also be close personal contacts and be at significant risk and therefore need IG.

HEPATITIS - B (HBV)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION:	Part of standard childhood immunization schedule.
INCUBATION PERIOD:	Generally 60-90 days, ranges from 15-180 days and on occasion as long as 9 months.
SYMPTOMS:	<p>Can be asymptomatic for all ages. Infection in children is symptomatic in less than 10% of cases.</p> <p>Typical signs and symptoms include any or all of the following: fatigue, loss of appetite, dark urine, light stools, nausea, vomiting, yellowing of eyes/skin (jaundice) and abdominal pain - all indistinguishable from other types of hepatitis.</p>
PERIOD OF COMMUNICABILITY:	Several weeks before symptoms appear and generally for several months afterward. For persons who become chronic carriers - infectivity is for life. Persons testing "e" antigen (HBeAg) positive are highly infectious.
MODE OF TRANSMISSION:	<p>Spread by direct contact with infected body fluids (blood, semen, vaginal secretions, saliva), and most commonly by needle sharing, needle stick injury, sexual contact or mother-to-infant perinatal transmission.</p> <p>Because HBV is stable on environmental surfaces for equal to or greater than 7 days, transmission can occur via contact with contaminated objects/items.</p>
SCHOOL ATTENDANCE:	Because hepatitis B is not spread by casual contact, child exclusion from school is not generally warranted or justified. Children who are HBV carriers and who have no behavioral or medical risk factors, such as unusually aggressive behavior (biting), generalized dermatitis, or a bleeding problem, should be admitted without restrictions.
CONTACTS/FOLLOW-UP: (Per Local Health Department)	Household and intimate contacts going back six months from onset of symptoms need to be identified. Immune status needs to be clarified. If contact is unimmunized, hepatitis B immunoglobulin (HBIG) and/or vaccine are recommended dependent on type of exposure. If case is pregnant, careful follow-up must be done to assure appropriate treatment of the newborn.

IMPETIGO

IMMUNIZATION: None

INCUBATION PERIOD: Variable, usually 1 to 10 days depending upon causative organism.

SYMPTOMS: Skin lesions with several stages including raised pimples filled with fluid or pus and crusted areas. The infecting organism may be streptococci or staphylococci or both.

PERIOD OF COMMUNICABILITY:
As long as purulent lesions continue to drain.

MODE OF TRANSMISSION:
Direct contact with drainage from lesions, possibly through contact with contaminated objects.

SCHOOL ATTENDANCE:
Exclude until skin lesions are healed, or until 24 hours after medical treatment has been initiated. Current recommendations may include systemic antibiotic medication in addition to topical antibiotics.

CONTACT/FOLLOW-UP:
Search for draining lesions

INFLUENZA
(Reportable Disease - Report to Local Health Agency)
or
UPPER RESPIRATORY INFLUENZA-LIKE ILLNESS

IMMUNIZATION: Influenza vaccine is recommended for children 6 months of age or older who have underlying medical conditions, including disorders of the lung and cardiovascular systems, and who are members of households with high-risk adults or siblings. NO immunization available for the other respiratory viruses that cause influenza-like illnesses.

INCUBATION PERIOD: Short, usually 1-3 days

SYMPTOMS: Sudden onset of fever, sore throat, muscle aches, runny nose, cough, headache.

PERIOD OF COMMUNICABILITY:
Probably 3-5 days, can be up to 7 days from clinical onset.

MODE OF TRANSMISSION:
Airborne spread, also by direct contact with articles recently contaminated by discharges from the nose and throat.

SCHOOL ATTENDANCE:
Exclude for duration of fever and until child is able to resume routine daily activities.

CONTACT/FOLLOW-UP:
If Type A Influenza , recommend medical evaluation for chemoprophylaxis with amantadine or remantadine.

MEASLES (HARD MEASLES, RUBEOLA)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: From 10 days varying from 7-18 days from date of exposure to onset of fever; usually 14 days until rash appears.

SYMPTOMS: Patient first develops fever and cold symptoms (cough, runny nose, and/or conjunctivitis). Fever usually reaches 101°F or greater. On the third to seventh day of illness, a blotchy, dark red rash appears, usually beginning on the face and spreading to the rest of the body. Rash lasts 4 to 7 days.

PERIOD OF COMMUNICABILITY:

- A highly communicable disease from slightly before beginning of prodromal period to 4 days following appearance of rash. Minimal after 2nd day of rash.
- If vaccine related - not communicable.

MODE OF TRANSMISSION:

Airborne by droplet spread, also direct contact with nasal or throat secretions of infected persons. Less commonly, by articles freshly soiled with nose and throat secretions.

SCHOOL ATTENDANCE:

Exclusion for at least 4 days after appearance of rash.

CONTACTS/FOLLOW-UP:

When a case of measles occurs in a school or day care, all students' immunization records should be reviewed promptly. Susceptible contacts should be immunized immediately to control spread of the disease. Immunization within 3 days of exposure is strongly recommended for susceptible students or household contacts. Immune globulin may be used within 6 days of exposure for susceptible household or other contacts at high risk of complications or for whom measles vaccine is contraindicated.

MEASLES (RUBELLA, GERMAN MEASLES)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: From 14 to 23 days, usually 16 to 18 days.

SYMPTOMS: Mild infectious disease with low-grade fever, rash of three days duration or less, headache, tiredness, runny nose and red eyes. Aching and/or swelling of joints may occur, especially in adults. Children may have few or no symptoms. Rubella is easily confused with other rash illnesses.

PERIOD OF COMMUNICABILITY: About 1 week before and at least 4 days after onset of rash. Moderately communicable. Infants with congenital rubella syndrome (CRS) can shed virus for months. Persons with suspected rubella should avoid contact with women of child-bearing age during the period of communicability.

MODE OF TRANSMISSION: Contact with discharges from nose or throat of infected person. Also by droplet spread or direct contact with infected persons.

SCHOOL ATTENDANCE: Exclusion for 7 days after appearance of rash.

CONTACTS/FOLLOW-UP: When a case of rubella occurs in a school or day care, all immunization records should be reviewed promptly. Susceptible students should be immunized for protection in the future. Vaccine does not prevent illness. **Pregnant contacts should consult their physicians immediately.**

Infection of susceptible pregnant women, especially in the first trimester of pregnancy, is significant because the infection may produce defects in the unborn fetus. The purpose of immunizing children is to reduce the likelihood of susceptible pregnant women being exposed to the disease. Live rubella virus vaccine should not be given to pregnant women.

ASEPTIC MENINGITIS
(Viral, Nonbacterial Meningitis)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Variable due to wide assortment of infectious agents.

SYMPTOMS: Rarely serious, characterized by febrile illness with complaints of stiff neck, headache, sometimes nausea and vomiting. Active illness seldom exceeds 10 days.

PERIOD OF COMMUNICABILITY:
During period of acute illness.

MODE OF TRANSMISSION:
By direct contact including respiratory droplets from nose and throat of infected person.

SCHOOL ATTENDANCE:
Exclude from school while acutely ill.

CONTACTS/FOLLOW-UP:
No recommendations.

MENINGITIS, *Haemophilus influenzae b*
(Hib)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION:	Part of standard immunization schedule. Required for day care attendance. Not required for school attendance
INCUBATION PERIOD:	Unknown but most likely short, 2-4 days.
SYMPTOMS:	Fever, vomiting, headache, neck stiffness and severe weakness. Bulging fontanelle (temples) in infants.
PERIOD OF COMMUNICABILITY:	As long as organisms are present in nasal pharynx (prolonged). Non-communicable within 24-48 hours after starting effective antibiotic therapy.
MODE OF TRANSMISSION:	<p>Person-to-person by direct contact, or through inhalation of droplets of respiratory tract secretions.</p> <p>Portal of entry is most commonly the nasopharynx.</p>
SCHOOL ATTENDANCE:	Exclusion until 24-48 hours following start of effective antibiotic therapy.
CONTACTS/FOLLOW-UP: (Per Local Health Agency)	<p>Observe contacts for signs of illness, especially fever. Preventive antibiotics are recommended for <u>all</u> household contacts in households where one or more infants (other than index case) are less than 12 months of age or have a child 1-3 years of age, inadequately immunized.</p> <p>Preventive antibiotics <u>may</u> be advisable for staff and children in child care center classrooms when 1 case has occurred. Preventive antibiotics are recommended when 2 cases occur among children in same classroom and when exposed children are inadequately immunized.</p>

MENINGOCOCCAL DISEASE
(Meningitis, Septicemia)
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: Available and recommended only for those above age two when the disease is caused by one of these serotypes (A ,C, W-135, or Y), **and** the disease results in a large institution or community outbreak.

INCUBATION PERIOD: Commonly 3-4 days, varies from 2-10 days.

SYMPTOMS: Sudden onset of fever, intense headache, nausea and often vomiting, neck stiffness and frequently a petechial rash (pinpoint, nonraised, purplish spots).

Delirium and coma can also occur. Occasionally, cases exhibit sudden prostration, bruising and shock at the onset of illness.

PERIOD OF COMMUNICABILITY:

Until organisms no longer present in nose and mouth.

Until 24 hours following the start of effective antibiotic therapy.

MODE OF TRANSMISSION:

Direct contact with oral secretions, including respiratory droplets from nose and throat of infected or colonized person. Many persons carry the germ in their nose and throat (are colonized) without signs of illness, while others may develop serious symptoms.

SCHOOL ATTENDANCE:

Exclusion until 24 hours following effective antibiotic therapy and child is able to participate in routine daily activities.

CONTACTS/FOLLOW-UP:

Household, child care and nursery school contacts are at increased risk of contracting invasive meningococcal disease. They and persons who have had contact with the infected person's oral secretions (i.e.: through kissing, sharing of food or beverages) during the 7 days before onset of disease are advised to receive preventive antibiotic therapy.

Casual contact as might occur in a regular classroom, office or factory setting rarely requires preventive medication.

MONONUCLEOSIS, INFECTIOUS

IMMUNIZATION: None

INCUBATION PERIOD: From 4 to 6 weeks.

SYMPTOMS: Sore throat, swollen lymph glands and fever. Disease generally mild in young children.

PERIOD OF COMMUNICABILITY:
Prolonged, may be up to a year or more.

MODE OF TRANSMISSION:
Person-to-person by contact with saliva (i.e: kissing, mouthing of toys) of infected person.

SCHOOL ATTENDANCE:
Infected children may attend school.

CONTACTS/FOLLOW-UP:
Not required

MUMPS
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: Refer to current immunization schedule.

INCUBATION PERIOD: From 12 to 25 days, most commonly 18 days

SYMPTOMS: Fever, swelling and tenderness of one or more salivary glands. Mumps can cause complications such as meningitis, arthritis, nephritis, pancreatitis and permanent deafness.

PERIOD OF COMMUNICABILITY:
Maximum infectiousness occurs about 48 hours before onset of illness to 9 days after swelling begins. Virus is in urine up to 14 days after onset of illness.

MODE OF TRANSMISSION:
By droplet spread and direct contact with saliva of infected person.

SCHOOL ATTENDANCE:
Exclusion for 9 days after swelling begins (less if swelling has subsided) if susceptible contacts are present.

CONTACTS/FOLLOW-UP:
Exclusion of susceptibles from the 12th through 25th day after exposure if susceptibles are present. Susceptible contacts should be immunized for protection against future exposure.

**PERTUSSIS
(WHOOPIG COUGH)
(Reportable Disease - Report to Local Health Agency)**

IMMUNIZATION: Part of standard childhood immunization schedule.

INCUBATION PERIOD: From 6 to 20 days, usually 7 to 10 days.

SYMPTOMS: Early symptoms are a cold, sneezing and coughing. Within one or two weeks the characteristic “whoop” begins. Coughing attack may end in vomiting. Coughing can last up to 1-2 months or longer. In infants apnea is common.

PERIOD OF COMMUNICABILITY: Whooping cough is especially infectious during its early states, before the “whooping” begins. Decreases thereafter, becoming negligible in about 3 weeks. When treated with erythromycin or other effective antibiotic, infectiousness usually is 5 days or less after onset of therapy.

MODE OF TRANSMISSION: Primarily by direct contact with discharges from respiratory tract of infected persons by airborne route, probably by droplets as well.

SCHOOL ATTENDANCE: Exclusion for 3 weeks after onset of typical paroxysms (whoop), if patient was not treated with antibiotics. If treated with erythromycin, exclude 5 days after onset of therapy.

CONTACTS/FOLLOW-UP: Exclusion of susceptible children from school and public gatherings for 14 days after last exposure or until case or contact has received 5 days of appropriate antibiotic therapy.

- Close contacts under 7 years of age who have not received 4 DTP doses or have not received a DTP dose within 3 years should be given a dose as soon after exposure as possible. DTaP may be given to children ≥ 15 months of age but less than 7 years who have received at least 3 doses of whole-cell vaccine. A 14-day course of erythromycin for household and other close contacts, regardless of immunization status, is recommended.
- A search for early, missed and atypical cases is indicated where a nonimmune infant or young child is or might be at risk.

PINWORMS (Enterobiasis)

IMMUNIZATION: None

INCUBATION PERIOD: 2 weeks to 2 months

SYMPTOMS: Intense rectal itching (primary symptom), may also include general irritability, restlessness, poor sleep, bed-wetting, perianal dermatitis and excoriation secondary to itching.

PERIOD OF COMMUNICABILITY:

As long as female worms are discharging eggs on perianal skin. Eggs remain infective in an indoor environment for about 2 weeks.

MODE OF TRANSMISSION:

Ingestion of eggs caused by scratching of rectal area and transferring eggs to mouth by putting fingers in the mouth. Those in close contact to infected individual may be exposed to contaminated objects. Transmission may also occur through contact with soiled clothing or bed linens.

SCHOOL ATTENDANCE:

Following appropriate treatment, child does not need to be excluded.

CONTACTS/FOLLOW-UP:

Other children observed by parents or child care personnel who have rectal itching should be checked for pinworms and treated if infection is present. Personnel should be made aware of the means of transmission and the potential for infection. Good hygiene among the children and personnel with washing of hands, bedclothes and toys should be emphasized. Parents should be advised that pinworm infections are common and often unavoidable in any group setting. They should be educated regarding the mode of transmission, symptoms, means of diagnosis and treatment options. Parents should be reassured that the diagnosis of pinworms in their child or in another child is not necessarily an indication of poor hygienic conditions. Susceptibility is universal.

**RESPIRATORY SYNCYTIAL VIRUS (RSV)
ACUTE FEBRILE RESPIRATORY DISEASE**

IMMUNIZATION:	None
INCUBATION PERIOD:	From 1 to 10 days, generally 4-6 days.
SYMPTOMS:	Fever and one or more symptoms such as chills or chilliness, headache, general aching, anorexia, and in infants, some gastrointestinal upset. Localized symptoms such as runny nose, sore throat, laryngitis, bronchitis, and pneumonia may occur.
PERIOD OF COMMUNICABILITY:	Hours prior to and for the duration of active illness. Young children may be infectious for 1-3 weeks after symptoms subside.
MODE OF TRANSMISSION:	Usually person to person through coughs, sneezes, and kissing; indirectly by hands, other articles contaminated with respiratory discharge from infected person.
SCHOOL ATTENDANCE:	Exclude during period of active symptoms, especially elevated temperature. Do not exclude children unless they are unable to participate comfortably in activities.
CONTACTS/FOLLOW-UP:	Emphasize the importance of good handwashing practices by children and staff.

RINGWORM OF THE SCALP **(Tinea capitis)**

IMMUNIZATION:	None
INCUBATION PERIOD:	10 to 14 days. The condition may spread for 3 to 4 months, and then spontaneous regression may occur.
SYMPTOMS:	Round, scaly, localized patches on the scalp with short, broken-off hairs. Redness and scaliness may be present and range from mild to severe. Examination under suitable filtered ultraviolet light shows characteristic fluorescence.
PERIOD OF COMMUNICABILITY:	As long as active lesions are present or viable fungus persists on contaminated materials - may persist for a long time.
MODE OF TRANSMISSION:	Direct skin to skin contact, or indirect contact from upholstered seats, toilet articles such as brushes and combs, or clothing and hats contaminated with hair from infected persons or animals. Dogs, cats, and cattle may harbor the organism.
SCHOOL ATTENDANCE:	Exclude until effective treatment is started. Usually requires prescription oral medication and antifungal shampoos or other topical treatment.
CONTACTS/FOLLOW-UP:	Watch for development of infection in other children and caregivers who provide direct, physical care to young children. Have family check pets and farm animals for infection and treat if infected.

RINGWORM OF THE SKIN **(Tinea corporis)**

IMMUNIZATION: None

INCUBATION PERIOD: 4 to 10 days. The condition may persist and recur for many years.

SYMPTOMS: Small, reddish, itchy, scaly patches that gradually expand outward, clearing in the middle, forming a flat, spreading ring-shaped lesion with scaling margins and clear centers. New lesions may form in the middle of an expanding ring. Usually appear as a single lesion.

PERIOD OF COMMUNICABILITY:
As long as active lesions are present.

MODE OF TRANSMISSION:
Direct skin to skin contact, or indirect contact from contaminated articles such as brushes, combs, clothing, towels, bedding and pillows. Dogs, cats, and cattle may harbor the organism.

SCHOOL ATTENDANCE:
Exclude until effective treatment is started. Usually treated with antifungal topical creams or ointments. In severe cases, may require oral prescription medication.

CONTACTS/FOLLOW-UP:
Watch for development of infection in other children and caregivers who provide direct, physical care to young children.
Parents should be notified that there has been a case or cases of ringworm, and advised to watch for the development of symptoms. If found, they should seek medical attention for diagnosis and treatment. Infected children should be excluded from swimming or other activities likely to lead to the exposure of others.

SALMONELLOSIS
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 12-36 hours, ranges from 6-72 hours.

SYMPTOMS: Headache, abdominal discomfort, fever, diarrhea, nausea and sometimes vomiting.

PERIOD OF COMMUNICABILITY:
Extremely variable, throughout course of infection which may be days to several weeks. In infants, carrier state may persist for months.

MODE OF TRANSMISSION:
Ingestion of organisms in food derived from infected food-animals or contaminated by feces of an infected person or animal. Includes raw and undercooked eggs/egg products, raw milk and milk products, contaminated water, meat and meat products or poultry and poultry products. Pet turtles, iguanas and chicks are also potential sources of Salmonella.

Fecal-oral transmission from person-to-person is important especially when diarrhea is present.

SCHOOL ATTENDANCE:
Exclusion of all attendees and staff who have diarrhea, until diarrhea has ceased.

Children and staff without diarrhea who are excreting Salmonella do not need to be excluded unless an outbreak occurs and it is not controlled through improved hygiene

CONTACTS/FOLLOW-UP:
If case is a child care provider or attendee, stool specimens from other attendees and staff should be obtained for culturing.

If multiple, symptomatic infected persons are identified, it may be necessary to exclude them or cohort them in the program.

Infected persons should be excluded from food handling until diarrhea ceases and two successive negative stool cultures are obtained.

SCABIES

IMMUNIZATION:	None
INCUBATION PERIOD:	2 to 6 weeks before onset of itching in primary infections; may recur in 1 to 4 days.
SYMPTOMS:	Intense itching. An infectious eruption found most frequently on front of the wrists, webs of the fingers, elbows and folds of the skin. Rash is non-specific and easily misdiagnosed.
PERIOD OF COMMUNICABILITY:	From day 1 until day following adequate treatment
MODE OF TRANSMISSION:	Skin-to-skin contact, occasionally via transfer from undergarments or bedclothes, bedding of infected person.
SCHOOL ATTENDANCE:	Exclude until the day after adequate treatment is completed.
CONTACTS/FOLLOW-UP:	Single infections in a family are uncommon. Treat bed mates, family contacts, other close contacts having repeated skin-to-skin contact. Launder bedclothes, sheets, clothes worn in past 3 days by infested person. Launder bedclothes and sheets following treatment of contacts.

SHIGELLOSIS
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION: None

INCUBATION PERIOD: Usually 1-3 days, varies from 1-7 days

SYMPTOMS: Can be asymptomatic.
Mild infection - watery or loose stools for several days.
Small-bowel infection - sudden onset of fever, headache, profuse watery diarrhea and sometimes toxemia. Convulsions can occur - important complication in children.
Large-bowel infection - abdominal cramps, tenderness, mucoid stools with or without blood or ineffective and painful straining when trying to pass stool.
Rarely bacteremia, Reiter's syndrome, hemolytic-uremic syndrome, colon perforation and toxic encephalopathy.

PERIOD OF COMMUNICABILITY:
During acute infection and until organisms no longer present in feces - usually 4 weeks following illness.
Appropriate antibiotic therapy reduces infectivity to a few days.

MODE OF TRANSMISSION:
Mainly by direct or indirect fecal-oral transmission from an infected or colonized person who fails to wash hands and under fingernails after having a bowel movement. Infected persons can then contaminate food, beverages and inanimate objects to spread disease to others.
Other modes of transmission include homosexual activity, fecal contamination of milk and water, and by flies which can transfer organisms from latrines to a nonrefrigerated food item.

SCHOOL ATTENDANCE:
Exclusion of all staff and attendees with diarrhea until 24 hours after diarrhea ceases. If several persons are infected, a cohort system should be considered until two consecutive stool cultures, 24 hours apart, and not sooner than 48 hours following discontinuation of antibiotic therapy, are negative.
Children and staff without diarrhea who are excreting *Shigella* do not need to be excluded unless an outbreak occurs and it is not controlled through improved hygiene.

CONTACTS/FOLLOW-UP:
Ill contacts of shigellosis infected persons should be excluded from food handling and the care of children until diarrhea ceases and 2 successive negative stool cultures are obtained 24 hours apart.

SHINGLES (Herpes Zoster)

IMMUNIZATION:	None
INCUBATION PERIOD:	Highly variable - months to years - as a latent form (reactivation) of chicken pox.
SYMPTOMS:	Grouped vesicular lesions that appear along one to three sensory dermatomes (nerve paths) with mild to severe pain. In immunocompromised persons, lesions can become generalized and result in vesicular complications.
PERIOD OF COMMUNICABILITY:	As long as lesions are wet, not scabbed, generally one week after onset of lesions.
MODE OF TRANSMISSION:	Direct contact with secretions of lesions of persons without history of chicken pox and/or are immunodeficient.
SCHOOL ATTENDANCE:	<p>Exclusion only if lesions cannot be covered and only until lesions are crusted.</p> <p>No exclusion necessary if environment is controlled and no one is susceptible to chicken pox.</p>
CONTACTS/FOLLOW-UP:	No recommendations for generally healthy susceptible children/adults.

STREPTOCOCCAL SORE THROAT AND SCARLET FEVER

IMMUNIZATION: None

INCUBATION PERIOD: Short, usually ranging 1 to 3 days.

SYMPTOMS: Streptococcal sore throat is scarlet fever infection without a rash. All symptoms are the same except the rash and peeling do not occur. Sudden onset, with sore throat, fever, tonsillitis or pharyngitis, and tender lymph glands in the neck. Rash, if it appears, usually does so within 24 hours upon neck, chest and in the folds of the axilla, elbows and groin. It appears as a fine, pinpoint rash which can be felt (like sandpaper). The face is flushed, with paleness around the mouth. The red papillae of the tongue may show through white coating ("strawberry tongue").

PERIOD OF COMMUNICABILITY:

In untreated, uncomplicated cases, 10-21 days; in untreated persons with purulent discharges, weeks or months; with adequate antibiotic therapy, generally no more than 24 hours from start of therapy.

MODE OF TRANSMISSION:

Mainly contact with respiratory droplets of infected person or carrier. Rarely per casual contact.

SCHOOL ATTENDANCE:

Children should not return to school until at least 24 hours after beginning antibiotic treatment, and until they are afebrile. Stress importance of need to complete prescribed treatment.

CONTACTS/FOLLOW-UP:

Symptomatic contacts should be cultured to assure adequate antibiotic treatment if culture is positive for strep.

TUBERCULOSIS DISEASE
(Reportable Disease - Report to Local Health Agency)

IMMUNIZATION:	Not generally recommended
INCUBATION PERIOD:	From infection to development of a positive reaction to a TB skin-test is about 2 to 10 weeks. Highest risk for disease is in the first 2 years following infection. In most instances, untreated infection becomes dormant and never progresses to disease in the healthy host.
SYMPTOMS:	Most children are asymptomatic. Symptoms of obvious lung disease might include fever, cough, poor appetite, and weight loss. Chest x-rays are needed to confirm active disease. The disease may spread to other organs.
PERIOD OF COMMUNICABILITY:	Children with primary tuberculosis are generally not infectious (they don't cough or produce sputum). For adults - as long as tubercle bacilli are being discharged in the sputum. Laryngeal TB is highly contagious.
MODE OF TRANSMISSION:	In adults, via airborne droplet nuclei produced by infected person during expiratory efforts, such as coughing, singing, sneezing.
SCHOOL ATTENDANCE:	Children with TB infection or disease can attend school or child care if they are receiving chemotherapy. They can resume all activities (extracurricular) when clinical symptoms have disappeared <u>and</u> acceptable plan for completing the course of therapy has been developed.
CONTACTS/FOLLOW-UP:	<p>Children younger than 4 years of age with positive tuberculin skin tests or with clinical tuberculous disease should be the starting point for epidemiologic investigation, which is best accomplished with assistance from the local health department. Close contacts of the tuberculin-positive child should be skin tested, and persons with a positive reaction should be investigated for the presence of tuberculosis. Since children with primary tuberculosis are usually not contagious, their contacts are not likely to be infected unless they also have been in contact with the adult source. After the presumptive adult source for the child's disease is identified, other contacts of that person should be skin tested to identify those needing antituberculosis treatment. Chest x-rays of tuberculin-positive contacts should be obtained, and treatment for disease or preventive therapy should be started.</p> <p>Persons exposed to a potentially infectious case of tuberculosis, especially persons with impaired immunity, and all household contacts younger than 4 years of age who are exposed to any adult with active tuberculosis should undergo tuberculin skin testing, have a chest x-ray, and be given INH preventive therapy even if the skin test is negative, once clinical disease is excluded.</p>

BLOOD/BODY FLUID PRECAUTIONS

(Including Blood Spill Clean-up)

Wear disposable gloves for contact or anticipated contact with any person's blood or body fluids.

Wear protective gown/apron if soiling of clothes is likely.

Wear goggles and/or mask as appropriate when splashing of blood/bloody fluids is likely.

Always WASH HANDS after removing gloves or hands have come in contact with blood or any body fluid/excretion.

Blood Spill Clean-up

- Follow instructions located inside blood spill clean-up kits, if provided.
- If no instructions are available, proceed using the following steps:
 - (a) Don appropriate protective apparel - at minimum a pair of disposable gloves, possibly disposable gown/apron if clothes are likely to be soiled.
 - (b) Use an absorbent or ample supply of paper towels to soak up blood spill and discard in plastic bag. If blood cannot be compressed from the towels or does not drip from the towels, waste will not meet the definition of regulated waste and may be discarded in regular trash. If the opposite is true, be sure soiled waste is placed in a biohazard bag.
 - (c) Cleanse spill area with soap and water or detergent plus disinfectant solution.
 - (d) Wipe with hospital-grade disinfectant labeled effective in killing human immunodeficiency (HIV) and hepatitis B viruses or a bleach solution freshly diluted (1 part bleach to 10 or 100 parts water). A 1:64 dilution is ¼ cup bleach in 1 gallon (16 cups) water.
 - (e) Allow above to air dry.
 - (f) Discard clean-up towels/wipes into plastic bag.
 - (g) Remove disposable gloves and discard in plastic bag.
 - (h) Put on second pair of disposable clothes, tie off plastic bag and place it inside another plastic bag (biohazard or unlabelled depending on if waste meets the definition of regulated waste).
 - (i) Carry waste to appropriate receptacle.
 - (j) Remove gloves and discard in regular waste. *
 - (k) WASH HANDS with soap and water.

*Regulated waste as defined in OSHA Occupational Exposure to Bloodborne Pathogens Rule, Dec. 6, 1991:

Regulated waste means liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious materials in a liquid or semi-liquid state if compressed; items that are caked with dried blood or other potentially infectious materials and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

MISSOURI IMMUNIZATION REQUIREMENTS

SUMMARY CHART OF THE MISSOURI SCHOOL IMMUNIZATION RULE

VACCINE	NO. OF DOSES	TYPE	TIMING
Measles	2	Usually MMR (Measles, Mumps, Rubella)	Two doses on or after first birthday, separated by at least 28 days, for students who start kindergarten or who were 5 or 6 years of age as of and after the 1990-91 school year.
	1		On or after first birthday for students who start kindergarten prior to the 1990-91 school year.
Rubella	1	Usually MMR	On or after first birthday
Mumps	1	Usually MMR	On or after first birthday
Polio	At least 3	IPV or OPV	Last dose must have been at age 4 or older. Four doses are required if a combination of IPV and OPV is used.
Diphtheria	4	DTaP, DTP, DTP-Hib, DT, Td	Four doses for students who start kindergarten as of and after the 1999-00 school year. Last dose must have been at age 4 or older.
	At least 3 (+ 10 year booster)		Three doses for students who start kindergarten prior to the 1999-00 school year. Last dose must have been at age 4 or older for students who start kindergarten as of and after the 1990-91 school year.
Tetanus	4	DTaP, DTP, DTP-Hib, DT, Td	Four doses for students who start kindergarten as of and after the 1999-00 school year. Last dose must have been at age 4 or older.
	At least 3 (+ 10 year booster)		Three doses for students who start kindergarten prior to the 1999-00 school year. Last dose must have been at age 4 or older for students who start kindergarten as of and after the 1990-91 school year.
Pertussis	4	DTaP, DTP, DTP-Hib	Four doses for students who start kindergarten as of and after the 1999-00 school year. Last dose must have been at age 4 or older.
	3		Three doses for all other students 6 years of age and younger. Last dose must have been at age 4 or older.
Hepatitis B	3	Hepatitis B (HB)	Applies to: <ul style="list-style-type: none"> students who start kindergarten as of and after the 1997-98 school year. students who start grade seven as of and after the 1999-00 school year.

These are the minimum requirements for school attendance in Missouri. The Department of Health Immunization Schedule reflects the optimal immunization recommendations of the Advisory Committee on Immunization Practices (ACIP), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP).

MISSOURI IMMUNIZATION REQUIREMENTS

SUMMARY OF THE MISSOURI CHILD CARE IMMUNIZATION RULE

AGE	VACCINATION
0 through 2 months	1 HB*
3 through 4 months	1 DTaP/DTP, 1 OPV/IPV, 1 or 2 HB, 1 Hib**
5 through 6 months	2 DTaP/DTP, 2 OPV/IPV, 2 HB, 1 or more Hib
7 through 15 months	3 DTaP/DTP, 2 OPV/IPV, 2 or 3 HB 1 or more Hib
16 through 59 months	4 DTaP/DTP, 3 OPV/IPV, 1 MMR, 3 HB, 1 or more Hib
5 years to kindergarten entry	4 DTaP/DTP, 3 OPV/IPV, 1 MMR, 3 HB

* Hepatitis B (HB) vaccine is recommended beginning in infancy according to the following schedule:

Birth – 2 months
dose 1

2 – 4 months
dose 2

6 – 18 months
dose 3

**There are currently several types of Hib vaccine available. The recommended schedules are as follows:

<u>Vaccine</u>	<u>2 months</u>	<u>4 months</u>	<u>6 months</u>	<u>12-15 months</u>	<u>15 months</u>
HibTITER (HbOC) ActHIB, OmniHIB (PRP-T)	dose 1	dose 2	dose 3	booster	
Pedvax HIB (PRP-OMP) Hib/Hep B (COMVAX)	dose 1	dose 2		booster	
ProHIBIT (PRO-D)					dose 1

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MISSOURI DEPARTMENT OF HEALTH

DIVISION OF MATERNAL, CHILD AND FAMILY HEALTH
Bureau of Family Health

DIVISION OF ENVIRONMENTAL HEALTH
AND COMMUNICABLE DISEASE PREVENTION
Section of Vaccine Preventable and Tuberculosis Disease Elimination
Section of Communicable Disease Control and Veterinary Public Health

DIVISION OF HEALTH STANDARDS AND LICENSURE
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